

**DECLARATION OF SOLE INVENTOR FOR PATENT APPLICATION**

As the below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled "Method of Forming Non-Volatile Resistance Variable Devices, Method of Precluding Diffusion of a Metal Into Adjacent Chalcogenide Material, and Non-Volatile Resistance Variable Devices", the specification of which is attached hereto.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims.

I acknowledge the duty to disclose information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations §1.56.

**PRIOR FOREIGN APPLICATIONS:**

I hereby state that no applications for foreign patents or inventor's certificates have been filed prior to the date of execution of this declaration.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or

09/02/03 13:36 FAX 703 416 0369

imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statement may jeopardize the validity of the application or any patent issued therefrom.

★ ★ ★ ★ ★ ★ ★ ★ ★ ★

Full name of sole inventor: John T. Moore

**Inventor's Signature:**

Date:

**Residence:** **Boise, Idaho**

Citizenship: **United States of America**

Post Office Address: **12530 West Lexus Court  
Boise, ID 83713**

[illegible]

Docket No.: M4065.0693/P693  
Micron No.: 00-0492.00/US

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent Application of:  
John T. Moore

Application No.: 09/779,983

Group Art Unit: 2824

Filed: February 8, 2001

Examiner: Michael K. Luhrs

For: METHOD OF FORMING NON-  
VOLATILE RESISTANCE VARIABLE  
DEVICES, METHOD OF PRECLUDING  
DIFFUSION OF A METAL INTO  
ADJACENT CHALCOGENIDE  
MATERIAL, AND NON-VOLATILE  
RESISTANCE VARIABLE DEVICE

**REVOCATION OF POWER OF ATTORNEY, NEW POWER OF  
ATTORNEY AND CHANGE OF CORRESPONDENCE ADDRESS**

Commissioner for Patents  
Washington, DC 20231

Dear Sir:

Micron Technology, Inc., assignee of the entire right, title and interest in and to the above-identified application, by virtue of the assignment (copy enclosed) recorded at reel/frame 011535/0144, hereby revokes any and all powers of attorney in the application, and specifically revokes the Power of Attorney dated February 2, 2001, and filed on February 8, 2001 concurrently with the present application, and assignee hereby appoints the attorneys and/or agents of the firm of Dickstein Shapiro Morin & Oshinsky LLP, located at 2101 L Street, N.W., Washington, D.C. 20037-1526, listed as follows:

Gary M. Hoffman	26,411	Ryan H. Flax	48,141	Ellen S. Tao	43,383
Thomas J. D'Amico	28,371	Richard LaCava	41,135	Gary L. Veron	39,057
Donald A. Gregory	28,954	John C. Luce	34,378	Steven I. Weisburd	27,409
James W. Brady, Jr.	32,115	Peter McGee	35,947	Mialeeka C. Williams-Bibbs	48,037
Jon D. Grossman	32,699	Edward A. Meilman	24,735	Peter Zura	48,196

Application No.: 09/779,983

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Micron No.: 00-0492.00/US

Mark J. Thronson	33,082	Edwin Oh	45,319	Jeremy A. Cubert	40,399
Eric Oliver	35,307	William E. Powell, III	39,803	Gianni Minutoli	41,198
Laurence E. Fisher	37,131	Steven S. Rubin	43,063	Michael Bergman	42,318
Ian R. Blum	42,336	Michael J. Scheer	34,425	Salvatore P. Tamburo	45,153
Gabriela I. Coman	50,515	Stephen A. Soffen	31,063	Peter A. Veytsman	45,920
Catherine A. Ferguson	40,877	Christopher M. Tanner	41,518	Christopher S. Chow	46,493

and also the attorneys of Micron Technology, Inc., listed as follows:

Charles B. Brantley, III	38,086	Kevin D. Martin	37,882	Russell Slifer	39,838
Michael L. Lynch	30,871	David J. Paul	34,692		

as its attorneys with full power of substitution to prosecute this application and to transact all business in the Patent and Trademark Office in connection therewith.


Please direct all correspondence regarding this application to the following:

Thomas J. D'Amico  
DICKSTEIN SHAPIRO MORIN & OSHINSKY LLP  
2101 L Street NW  
Washington, DC 20037-1526  
Telephone: (202) 785-9700  
Fax: (202) 887-0689

The undersigned is authorized to act on behalf of the assignee, that is, to sign this submission on behalf of the assignee.

Respectfully submitted,

MICRON TECHNOLOGY, INC.



Michael L. Lynch  
Chief Patent Counsel  
Registration No. 30,871

Dated: Apr 22, 2009

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application Serial No. . . . . Unknown  
 Filing Date . . . . . Filed Herewith  
 Inventor . . . . . John T. Moore  
 Assignee . . . . . Micron Technology, Inc.  
 Group Art Unit . . . . . Unknown  
 Examiner . . . . . Unknown  
 Attorney's Docket No. . . . . MI22-1524  
 Title: Method of Forming Non-Volatile Resistance Variable Devices, Method of  
 Precluding Diffusion of a Metal Into Adjacent Chalcogenide Material, and  
 Non-Volatile Resistance Variable Devices

**POWER OF ATTORNEY BY ASSIGNEE AND**  
**CERTIFICATE BY ASSIGNEE UNDER 37 CFR §3.73(b)**

To: Assistant Commissioner for Patents  
 Washington, D.C. 20231

Sir:

**MICRON TECHNOLOGY, INC.**, the Assignee of the entire right, title and  
 interest in the above-identified patent application by assignment attached  
 hereto, hereby appoints the attorneys and agents of the firm of WELLS, ST.  
 JOHN, ROBERTS, GREGORY & MATKIN P.S., listed as follows:

David P. Roberts	Reg. No. 23,032
Randy A. Gregory	Reg. No. 30,386
Mark S. Matkin	Reg. No. 32,268
James L. Price	Reg. No. 27,376
Deepak Malhotra	Reg. No. 33,560
Mark W. Hendricksen	Reg. No. 32,356
David G. Latwesen	Reg. No. 38,533
George G. Grigel	Reg. No. 31,166
Keith D. Grzelak	Reg. No. 37,144
James D. Shaurette	Reg. No. 39,833
Frederick M. Fliegel	Reg. No. 36,138
D. Brent Kenady	Reg. No. 40,045
James E. Lake	Reg. No. 44,854
Bernard Berman	Reg. No. 37,279

and also attorneys Michael L. Lynch (Reg. No. 30,871) and Lia Pappas Dennison (Reg. No. 34,095) of Micron Technology, Inc., as its attorneys with full power of substitution to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

The Assignee certifies that the above-identified Assignment has been reviewed and to the best of Assignee's knowledge and belief, title is in the Assignee, and a copy of the Assignment is submitted herewith.

Please direct all correspondence regarding this application to:

Customer No. 021567  
Wells, St. John, Roberts, Gregory & Matkin P.S.  
Attn: Mark S. Matkin  
601 West First Avenue, Suite 1300  
Spokane, WA 99201-3828

Telephone: (509) 624-4276  
Facsimile: (509) 838-3424

MICRON TECHNOLOGY, INC.

Dated: 2-2-01

By: 

Name: Michael L. Lynch, Esq.  
Title: Chief Patent Counsel

Attachment: *Copy of Assignment; Copy of Board of Directors' Resolution*

**PATENT ASSIGNMENT**

**PARTIES TO THE ASSIGNMENT:**

**INVENTOR:**

John T. Moore

**COPY**

**ASSIGNEE:**

Micron Technology, Inc.  
Corporation of the State of Delaware  
8000 South Federal Way  
Boise, Idaho 83716

**BACKGROUND OF THIS ASSIGNMENT:**

INVENTOR has conceived certain new and useful inventions disclosed in a United States patent application titled "Method of Forming a Non-Volatile Resistance Variable Device, Method of Precluding Diffusion of a Metal Into Adjacent Chalcogenide Material, and Non-Volatile Resistance Variable Device".

MICRON TECHNOLOGY, INC. (hereinafter referred to as "ASSIGNEE") desires to acquire the entire right, title and interest in said inventions and with respect to any Letters Patent that may be granted with respect to the inventions in both the United States and in all foreign countries.

**THE PARTIES AGREE AS FOLLOWS:**

In consideration of good and valuable consideration, the receipt sufficiency and adequacy of which is hereby acknowledged, INVENTOR hereby sells, assigns and transfers to ASSIGNEE the entire right and interest in the

above-identified application executed concurrently with this assignment and to any reissues, renewals, divisions or continuations thereof, and hereby authorizes the Commissioner of Patents and Trademarks to issue such Letters Patent to ASSIGNEE for the sole use of ASSIGNEE, its successors or assigns.

INVENTOR further agrees to execute, at the request and expense of ASSIGNEE such other formal documents as may be required to fully convey the interest transferred herein and will similarly execute any application papers required for the filing of any division, continuation, renewal or reissue of the patent application or resulting Letters Patent; and will generally do everything necessary or desirable to obtain and enforce proper protection for the invention assigned hereby.

INVENTOR further assigns to ASSIGNEE the whole right, title and interest in the inventions disclosed in the application throughout all countries foreign to the United States. ASSIGNEE is hereby authorized to apply for patents relating to the inventions in its own name in countries where such procedure is proper; to claim the benefit of the International Convention; to file and prosecute International Applications relating to the inventions under the Patent Cooperation Treaty; and to file and prosecute applications relating to the inventions under the European Patent Convention. INVENTOR agrees to execute applications relating to the inventions in those countries and under those conventions where it is necessary that the same be executed by the



inventor, and to execute assignments of such applications and the resulting Letters Patent to ASSIGNEE as well as all other necessary papers in relation to such applications and Letters Patent.

INVENTOR further warrants and covenants that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been or will be made to others by the undersigned, and that the full rights to convey the same as herein expressed is possessed by the undersigned.

To be binding on the heirs, assigns, representatives and successors of the undersigned and extend to the successors, assigns and nominees of the Assignees.

Dated: 01/24/01

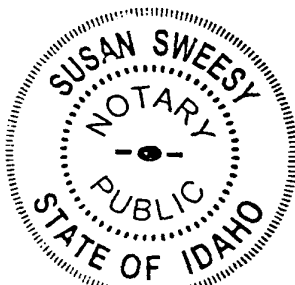
By:

John T. Moore  
John T. Moore

State of Idaho )  
County of Ada ) ss.

BEFORE ME, this 24 day of Jan., 2000 personally appeared the above-named inventor, to me known to be the person who is described in and who executed the foregoing assignment instrument and acknowledged to me that he/she executed the same of his/her own free will for the purpose therein expressed.

SEAL



Susan Sweesy  
Notary or Consular Officer  
My Commission Expires: 12-7-06

**COPY**



**UNITED STATES DEPARTMENT OF COMMERCE**  
**Patent and Trademark Office**  
ASSISTANT SECRETARY AND COMMISSIONER  
OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

MAY 04, 2001

PTAS

WELLS, ST. JOHN, ROBERTS, GREGORY, ET AL  
MARK S. MATKIN  
601 WEST FIRST AVENUE, SUITE 1300  
SPOKANE, WA 99201-3828



\*101622193A\*

UNITED STATES PATENT AND TRADEMARK OFFICE  
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 02/08/2001

REEL/FRAME: 011535/0194  
NUMBER OF PAGES: 4

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

MOORE, JOHN T.

DOC DATE: 01/24/2001

ASSIGNEE:

MICRON TECHNOLOGY, INC.  
8000 SOUTH FEDERAL WAY  
BOISE, IDAHO 83716

SERIAL NUMBER: 09779983

PATENT NUMBER:

FILING DATE:

ISSUE DATE:

JEEVON JONES, EXAMINER  
ASSIGNMENT DIVISION  
OFFICE OF PUBLIC RECORDS

02-28-2001

IEET

U.S. DEPARTMENT OF COMMERCE

Patent and Trademark Office

EL 465854358

Tab settings == ==



To the Honorable Commissioner of P

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re attached original documents or copy thereof.

1. Name of conveying party(ies):

John T. Moore

2. Name and address of receiving party(ies):

Name: Micron Technology, Inc.

Internal Address: \_\_\_\_\_

Additional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

3. Nature of conveyance:

☒ Assignment

☐ Merger

☐ Security Agreement

☐ Change of Name

☐ Other \_\_\_\_\_

Street Address: 8000 South Federal Way

City: Boise State: ID ZIP: 83716

Execution Date: January 24, 2001

Additional name(s) & address(es) attached? ☐ Yes ☒ No

4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is: January 24, 2001

A. Patent Application No.(s)

B. Patent No.(s)

Additional numbers attached? ☐ Yes ☒ No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Mark S. Matkin

Internal Address: Wells, St. John, Roberts, Gregory & Matkin P.S.

Street Address: 601 West First Avenue, Suite 1300

City: Spokane State: WA ZIP: 99201-3828

6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 3.41) ..... \$ 40.00

☒ Enclosed

☐ Authorized to be charged to deposit account

8. Deposit account number:

23-0925

(Attach duplicate copy of this page if paying by deposit account)

DO NOT USE THIS SPACE

9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Mark S. Matkin

Name of Person Signing

[Signature]  
Signature

2-8-01  
Date

Total number of pages including cover sheet, attachments, and document: 4

12/14/E001 MYUSUF1 00000008 09779983

13 501501

40.00 BP

Mail documents to be recorded with required cover sheet information to:  
Commissioner of Patents & Trademarks, Box Assignments  
Washington, D.C. 20231

**PATENT ASSIGNMENT****PARTIES TO THE ASSIGNMENT:****INVENTOR:**

John T. Moore

**ASSIGNEE:**

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Corporation of the State of Delaware  
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Boise, Idaho 83716

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inventor, and to execute assignments of such applications and the resulting Letters Patent to ASSIGNEE as well as all other necessary papers in relation to such applications and Letters Patent.

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To be binding on the heirs, assigns, representatives and successors of the undersigned and extend to the successors, assigns and nominees of the Assignees.

Dated: 01/24/01

By: John T. Moore  
John T. Moore

State of Idaho )  
County of Ada ) ss.

BEFORE ME, this 24 day of Jan., 2000 personally appeared the above-named inventor, to me known to be the person who is described in and who executed the foregoing assignment instrument and acknowledged to me that he/she executed the same of his/her own free will for the purpose therein expressed.

SEAL



Susan Sweesy  
Notary or Consular Officer  
My Commission Expires: 12-7-06